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SCIENCE

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THE NATURE, ORIGIN AND MAINTENANCE OF LIFE¹

EVERYBODY knows, or thinks he knows, what life is; at least, we are all acquainted with its ordinary, obvious manifestations. It would, therefore seem that it should not be difficult to find an exact definition. The quest has nevertheless baffled the most acute thinkers. Herbert Spencer devoted two chapters of his "Principles of Biology" to the discussion of the attempts at definition which had up to that date been proposed, and himself suggested another. But at the end of it all he is constrained to admit that no expression had been found which would embrace all the known manifestations of animate, and at the same time exclude those of admittedly inanimate, objects.

The ordinary dictionary definition of life is "the state of living." Dastre, following Claude Bernard, defines it as "the sum total of the phenomena common to all living beings." Both of these definitions are, however, of the same character as Sydney Smith's definition of an arch-deacon as "a person who performs archidiaconal functions." I am not myself proposing to take up your time by attempting to grapple with a task which has proved too great for the intellectual giants of philosophy, and I have the less disposition to do so because recent advances in knowledge have suggested the probability that the dividing line between animate and inanimate matter is less sharp than it has

¹ Address of the president of the British Association for the Advancement of Science given at the Dundee meeting, 1912. The introductory remarks and the footnotes have been omitted.